



**SPECIAL PROVISIONS
FOR
PERENNIAL PLANTS**

**Johnson County
STP-A-5557(619)--86-52**

**Effective Date
December 15, 2015**

THE STANDARD SPECIFICATIONS, SERIES 2015, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

PART 1 GENERAL

1.01 SUMMARY

- A. This Special Provision includes all labor, materials, equipment, and supervision required to provide furnish and install herbaceous perennial plants and ornamental grasses. Both plant types are referred to as perennial plants.
- B. Incidental to the bid item, perennial plants and included in this specification is plant bed preparation; soil amendments; herbaceous perennial plants; ornamental grasses; plant procedures; pre-installation meeting; progress meetings; initial acceptance and substantial completion; maintenance until the time of acceptance of landscape materials; and warranty and replacement.

1.02 MEASUREMENT AND PAYMENT

- A. Method of Measurement: The Engineer will count each installed Perennial Plant.
- B. Basis of Payment: Payment for Perennial Plants includes all labor, materials, equipment, and supervision required for plant bed preparation; soil amendments; herbaceous perennial plants; ornamental grasses; plant procedures; pre-installation meeting; progress meetings; initial acceptance and substantial completion; maintenance until the time of acceptance of landscape materials; and warranty and replacement.

1.03 QUALITY ASSURANCE

- A. Source Quality Control:
 - 1. General: Ship landscape materials with certificates of inspection required by governing authorities. Comply with regulations applicable to landscape materials. Obtain any necessary permits for this work and pay any fees required for permits.

2. Do not make substitutions. If specified landscape materials are not obtainable, submit proof of non-availability, together with proposal for use of equivalent material. Availability shall be determined prior to bid submittal as described in part 2 - Products of this section.
 3. Analysis and Standards: Package standard products with manufacturer's certified analysis. For other materials, provide analysis by recognized laboratory made in accordance with methods established by the Association of Official Agriculture Chemists, wherever applicable.
- B. Perennial Plants: Provide plants of quantity, size, genus, species, and variety shown and scheduled for landscape work and complying with recommendations and requirements of Perennial Plant Association Standards. Provide healthy, vigorous stock, grown in recognized nursery in accordance with good horticultural practice and free of disease, insects, eggs, larvae, and defects.
- C. Regulatory Requirements:
1. Comply with applicable requirements of Federal, State, and Local laws, regulations and codes having jurisdiction at the project site. The Contractor shall take out all required permits, arrange for all necessary inspections and shall pay any fees and expenses in conjunction with the same as a part of the work under this section.
 2. Contractor shall be responsible for certificates of inspection of plant material that may be required by Federal and Local authorities to accompany shipments of plants.
 3. The entire installation shall fully comply with all local and state laws and ordinances and with all the established codes applicable thereto.
- D. Botanical (scientific) plant names shall comply with:
1. Index Hortensis Volume 1 Perennials.
 2. Naamlijst Van Vaste Planten.
 3. Name der Stauden - ISU.
 4. Hortus III.
- E. Provide stock true to name and legibly tagged.
- F. All plants shall comply with American National Standards Institute (ANSI); Publication Z60.1-current edition.
- G. Plant Labels: Each separately containerized plant brought to the site shall be labeled.
- H. Inspection: The Engineer may inspect plants either at place of growth or at the site before planting, for compliance with requirements for genus, species, variety, size, and quality. The Engineer retains the right to further inspect plants for size and condition of root systems, insects, injuries and latent defects, and to reject unsatisfactory or defective material at any time during progress of work. Remove rejected plants immediately from project site.
- I. Substitutions: Substitutions of plant material will not be permitted unless authorized in writing by the Engineer. If proof is submitted that any plant specified is not obtainable, a proposal will be considered for use of the nearest equivalent size or variety with corresponding adjustment of Contract Price. Such proof shall be substantiated and submitted in writing to the Engineer at least 30 days prior to start of the work. These provisions shall not relieve the Contractor of the responsibility of obtaining specified materials in advance if special growing conditions or other arrangements must be made in order to supply specified materials.

1.04 SUBMITTALS

- A. General: Submit the following in accordance with conditions of Contract.
- B. Plant and Material Certifications:
1. Certificates of inspection as required by governmental authorities.

2. Manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
 3. Label data substantiating that planting materials comply with specified requirements.
 4. Shredded hardwood mulch samples.
- C. Planting Schedule: Proposed planting schedule, indicating dates for each type of landscape work during normal seasons for such work in area of site. Once accepted, revise dates only as approved in writing, after documentation of reasons for delays. Field Potted or Container Grown perennials and ornamental grasses shall be planted only when the ground is not frozen, snow covered, or in an otherwise unsuitable condition for planting. Spring planting may occur as soon frost is absent from the ground until June 15, and fall planting shall generally occur between August 15 and November 15.
- D. Maintenance Instructions: Typewritten instructions recommending procedures to be established by Contracting Authority for maintenance of landscape work during the one year warranty period.
- E. Submittals shall include written notification to the engineer at least 30 days prior to start of the work, the source and supplier of all plant material, fertilizer, soil amendments and other materials along with the type of equipment to be used on this project. Plant material shall comply with the proposed planting schedule, indicating the type, size, and quantity of each species.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Packaged Materials: Deliver packaged materials in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery, and while stored at site.
- B. Pre-planting: Plants shall be brought to the site the day they are to be installed, if possible. If situations arise where earlier delivery cannot be avoided or if planting is delayed after the plants have been delivered, they shall be stored where they can be properly watered, sheltered from direct sunlight, and protected from mechanical damage by construction equipment, animals, etc. If storage needs to be more than two days, the plants shall be separated far enough from each other to provide good air circulation to their tops, reducing the risk of fungus. Bare root plants which must be held shall be healed-in where they can be watered as needed.
1. All plants shall be watered thoroughly and allowed to drain prior to planting.
 2. While planting, bare root plants must be protected from hot sun and drying wind by shading them with burlap, landscape fabric, straw, or other breathable material. Plastic is unacceptable.
 3. Containerized plants must be left in their containers until each is planted. They shall not be removed from the containers to be laid out on the bed where sun and wind will damage the roots prior to planting.
 4. Any dead or damaged plant parts shall be removed from the plants upon planting.

PART 2 PRODUCTS

2.01 HERBACEOUS PERENNIAL PLANTS AND ORNAMENTAL GRASSES

- A. As specified and listed on the plans.
1. Container-grown plants -- grown to a specified size in a container.

2.02 SOIL AMENDMENT MATERIALS

- A. Amend topsoil with the following proportions:
1. Topsoil: 1 part volume
 2. Peat: 1 part volume
 3. Sand: 1 part volume
 4. Fertilizer: 3 pounds per cubic yard of soil. Commercial fertilizers: Commercial grade

conforming to current requirements of the Iowa Department of Agriculture, uniform in composition, liquid or dry, and free flowing.

PART 3 EXECUTION

3.01 PLANT BED LAYOUT

- A. Layout plant beds and obtain approval of Engineer prior to excavation and bed preparation.

3.02 PLANT BED PREPARATION

- A. See bid Item Topsoil, Furnish and Spread. Strip and remove surface vegetation from plant bed areas. Amend as specified.
- B. Install plant bed edger as shown on plans.
- C. Shape plant bed to drain as shown on plans.

3.04 EDGING

- A. See bid item Limestone Edging.
- B. Layout and obtain approval of plant beds prior to edging. Edge all perennial beds as shown on drawings. Form edging with smooth arcs and straight and true lines.

3.05 FERTILIZATION

- A. Add commercial grade fertilizer and other plant bed amendments to each plant bed as follows:
 - 1. Commercial grade fertilizer at a rate of 3 pounds of K20 per 1000 square foot (plant food ration 0.5:2:3 applied at 3 pounds K20 per 1000 square foot yields 2 pounds of P205 and 0.5 pounds of N per 1000 square foot.)
 - 2. Agricultural limestone at a rate to be determined by soil test. Lime will be applied to adjust bedding soil pH range to 5.5 0 6.5. Payment for labor and material based on unit price bid.
- B. Till fertilizer and lime into the top 6 inches of the planting bed.
- C. After fertilization, rake plant beds smooth, shape plant bed contour to drain, and prepare the bed surface for planting.

3.06 PLANTING

- A. Prior to planting, the Engineer will inspect the site. Any unsatisfactory conditions shall be corrected prior to planting. No weeds should be present in the beds at planting time.
 - 1. Herbaceous perennials may be planted according to specified schedule.
 - 2. Planting shall be done by experienced employees under the supervision of a qualified supervisor.
 - 3. Plants shall be located as designated on the plan.
- B. Nursery Stock:
 - 1. Container-grown stock shall be left in its container until the soil has been prepared and approved by the Engineer. Upon removal from its container, the root system of each plant shall be inspected by the contractor for any sign of root decay or harmful soil insects. Affected plants should be brought to the attention of the Engineer and the installation stopped until healthy plants can be procured. If the roots appear healthy, the root ball should be scored from top to bottom on four sides and across the bottom in an "X". These cuts shall then be pulled open, the plant set into the planting hole, and the soil firmed around the root

- ball. Set plants at the same depth they occupied in their containers.
- 2. Field-grown and potted stock shall be set into the planting bed at the same depth as it has been growing in the field.
- 3. Plant Spacing: As specified on the plans and in the plant schedule. Subject to approval by the Engineer.

3.07 WATERING

- A. Water each plant as planted to settle soil and prevent wilting.
- B. See bid item Watering for Plants.

3.08 MULCHING

- A. See bid item Mulch.

3.09 MAINTENANCE

- A. The landscape contractor is responsible for the maintenance of the herbaceous perennials from the time they are brought onto the job site until they are planted and accepted.
 - 1. Plants shall be watered often enough to prevent wilting prior to planting. After planting, they shall be watered initially to settle the soil, then to prevent wilting and to allow them to become established on the site.
 - 2. The beds shall be free of weeds at planting time and shall be maintained weed free by the contractor until the planting is accepted.
 - 3. Make periodic visits to project site to review plant conditions and maintenance operations being performed by Contracting Authority. Contractor to notify Contracting Authority in writing of any observed deficiencies affecting the health of the plants.
 - 4. Should insects or diseases attack the plants after installation and prior to acceptance of the planting, appropriate pesticides shall be properly applied to correct the situation.
 - 5. The beds should be checked regularly for soil settling which may expose the rootballs or otherwise endanger the health of the planting. Should this occur, the contractor shall correct the settling problems.
 - 6. Newly planted herbaceous perennials may be heaved out of the ground by alternate freezes and thaws. Should this occur prior to acceptance of the planting, the contractor shall re-set those affected plants.
 - 7. Any noted defects, such as reversions, errant growth or color not typical for the species or cultivar, shall be brought to the attention of the Engineer. The recommendations of the Engineer shall be followed to correct the situation. Recommendations may include removal of the entire plant.
- B. The Contracting Authority becomes responsible for the maintenance of the plants after the planting has been initially accepted by the Engineer. Failure to properly maintain the planting during the one year warranty period shall void any warranty.
 - 1. After the contractor has completed watering per the bid item Watering for Plants, the Contracting Authority shall water the plants to prevent wilting. The schedule will vary with the growth of the plants and prevailing climate. Generally, new plantings will need to receive 1 inch of water per week. A rain gauge should be placed in the planting to verify the amount of rain and hand-watering applications.
 - 2. The Contracting Authority shall properly pinch, prune, and deadhead the herbaceous perennials as needed and as required to meet the aesthetic goal of the planting.
 - 3. The Contracting Authority shall maintain the planting free from competing weeds.
 - 4. The Contracting Authority shall regularly inspect the planting for insects and diseases, notifying the Engineer of any noted occurrences. If pesticides are deemed necessary, they shall be applied according to the manufacturer's recommendations.
 - 5. After the acceptance of the planting, the Contracting Authority is responsible for correcting

- any settling of the planting beds.
- 6. After acceptance, the Contracting Authority is responsible for setting any plants which are heaved out of the ground in whole or in part by climate changes.
- 7. Unsatisfactory performance of the herbaceous perennials noted by the Contracting Authority after acceptance of the planting should immediately be brought to the attention of the Engineer.

3.10 MEETINGS AND INITIAL ACCEPTANCE

- A. Pre-installation meeting: the Contractor shall meet with the engineer to review schedule, submittals, and project expectations. This meeting shall occur at least 10 days prior to the start of any work on site.
- B. First inspection meeting: the Contractor shall notify the engineer 5 days in advance for review on plant stock delivery, plant bed layout, and material review. This meeting shall occur before planting begins to ensure the proper planting procedures are followed
- C. Progress inspections: the engineer will examine the site to ensure correct planting procedures, coordinate on unexpected site conditions, and inspection of additional plant stock on site.
- D. Initial inspection of the planting to determine completion of the contract work, exclusive of possible replacement of the plants, will be made by the Engineer.
 - 1. Initial inspection will not be conducted unless all items of work as outlined in Part 3 - Execution have been completed.
 - 2. Submit written notice requesting such inspection at least 5 days prior to the anticipated date.
 - 3. After inspection, the Contractor will be notified in writing by the Contracting Authority of initial acceptance of the work inspected, exclusive of the possible replacement of plants subject to guarantee, or if there are any deficiencies, of the requirement for completion of the work.
 - 4. Maintenance areas are not acceptable as specified until corrections are completed and reinspection is conducted.
 - 5. All perennial plants shall be planted before an initial inspection will be conducted.
 - 6. All plants shall be in a live and healthy condition at the time of initial acceptance.
- E. Substantial completion: substantial completion shall be formally issued by the engineer once all punch-list items are completed resulting from the initial acceptance inspections. Award of substantial completion marks the beginning of the 1 year warranty period. After substantial completion, replace plants (once during or at the end of the warranty period) that are observed to be dead or in a badly impaired condition.
 - 1. One replacement after initial acceptance and substantial completion shall constitute fulfillment of contractor's guaranty for the particular plant replaced.
 - 2. Replacement of dead or rejected plants before initial acceptance shall not be considered a part of the warranty and replacement requirement of the section.

3.11 SUBSTANTIAL COMPLETION AND FINAL INSPECTION

- A. Substantial completion: substantial completion shall be formally issued by the engineer once all punch-list items are completed resulting from the initial acceptance inspections.
 - 1. Award of substantial completion marks the beginning of the 1 year warranty period.
 - 2. After substantial completion, replace plants (once during or at the end of the warranty period) that are observed to be dead or in a badly impaired condition. One replacement after initial acceptance and substantial completion shall constitute fulfillment of contractor's guaranty for the particular plant replaced.
- B. Final inspection: 1 year warranty inspection: the contractor shall submit a written request to the engineer for site inspection at least 14 days before the anticipated date of inspection.

3.12 WARRANTY, REPLACEMENT, AND FINAL INSPECTION

- A. All plants will be guaranteed to be true to name as labeled and free from insects, diseases, and mechanical damages when delivered to the site. All plants will be guaranteed to resume active growth in the appropriate season and to survive for the duration of 1 full year after initial acceptance by the Engineer, provided the recommended maintenance procedures are followed by the Contracting Authority.
 - 1. At the end of the warranty period, final inspection will be made by the Engineer upon written notice requesting such inspection; submit notice to the Engineer at least 14 days before the anticipated date of inspection.
 - 2. Any plant required under this Contract that is dead or not in a vigorous, thriving condition, as determined by the Engineer at the time of final inspection, shall be removed from the site. These and any missing plants, due to the negligence, shall be replaced as soon as conditions permit, but during the normal planting season.

- B. Replace plants that are observed to be dead or in a badly injured condition after initial acceptance at no cost to the Contracting Authority once during or at the end of the warranty period.
 - 1. One replacement after initial acceptance shall constitute fulfillment of the warranty for the particular plant replaced.
 - 2. All replacements shall be plants of the same kind and size as specified in the Plant Schedule. They shall be furnished and planted as specified herein.
 - 3. Plant shall be replaced, mulched, and fertilized at no cost to Contracting Authority.

- C. Make all necessary repairs to grades, lawns, and paving required because of plant replacements. Such repairs shall be done at no extra cost to the Contracting Authority.

- D. Plant replacement cost shall be borne by Contractor except for possible replacements resulting from removal, loss, or damage due to occupancy of project in any part, vandalism, civil disobedience, or acts of neglect on the part of others, physical damage by animals, vehicles, fire, etc., or losses due to curtailment of water by local authority, or the "Acts of God". Floods, tornadoes, wind of hurricane force, and hail are not normal and the damage they do cannot be calculated in a bid.